

PUMPING PLAN

Pumps To Be Operated	Stage No:1 Hours:	Stage No:2 Hours:	Stage No:3 Hours:	Stage No:4 Hours:	Stage No:5 Hours:				
COP NO 1	-	-	-	-	-				
COP NO 2	-	-	-	-	-				
COP NO 3	Y	Y	Y	Y	Y				
WBP 1	-	Y	Y	Y	Y				
WBP 2	-	-	-	-	-				
WB EDUCATOR	-	-	-	-	-				



CCR. 2.0 - LOADING & DISCHARGING PLAN

Date	: 10/08/2018
Page	: 7 of 10
Made by	: QHSE
Approved by	: MD
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LOADING/ DISCHARGING OPERATIONS SEQUENCE

Indicate/ Record instructions and sequence of operations to take place (such as valve status and line up, tank atmosphere status including IG pressure, pumps to be used, stripping and pump to be used, topping up process, ullaging method, ballast operations/ sequence) per stage. The details and instructions to be provided shall be separated per stage (i.e. instructions to be followed for stage 1, then for stage 2 and so on).

Stage No: Hours:	Instructions To Be Followed
1	<p>CARGO : Vessel to discharge BITUMEN PEN 60/70 from Nominated tanks (1w's , 4w's COT). Before commencing discharging ensure vessel lined up as per below mentioned sequence MANIFOLD V/V 's (OPEN), MANIFOLD CROSSOVER V/V 'S (OPEN), GOOSENECK V/V (SHUT) , MANIFOLD DRAIN V/V'(SHUT), LINEMASTER V/V (open), DROP V/V (shut), BOTTOM CROSSOVER (OPEN) , TANK V/V'S (OPEN), BULKHEAD MASTER V/V'S (open) ,PUMPROOM XOVER(OPEN) , PUMP DISCH. V/V (OPEN) . Initial discharging rate to be 150cub m per line . Once ensure cargo being recieved in cargo tank open two more tank valves and increase the rate gradually to maximum 1000 cub m per hour/per line. Mastriser to be used as means of venting. Maintain positive pressure in the tanks . Hydraulic pump level to be monitored. Shipshore safety checklist to be complied with at all times . Discharging operations checklists to be complied with . Hourly pumproom rounds to be taken . LSA / FFA / SOPEP equipments to be kept ready at all times .</p> <p>BALLAST : Vessel to start ballasting 1w's WBT by gravity.</p>
2	<p>CARGO : Vessel to continue Discharging at maximum Discharging rate as above mentioned sequence plan. Hourly comparison of ship shore figures to be carried out. Hydraulic pump level to be monitored. Shipshore safety checklist to be complied with at all times . Discharging opeartions checklists to be complies with . Hourly pumproom rounds to be taken . LSA / FFA / SOPEP equipments to be kept ready at all times .</p> <p>BALLAST : Start NO 1 WBP when required and adhere to sequence mentioned above. Monitor stresses & stability of the vessel at all times.</p>
3	<p>CARGO : Vessel to continue Discharging at maximum Discharging rate as above mentioned sequence plan. Hourly comparison of ship shore figures to be carried out. Hydraulic pump level to be monitored. Shipshore safety checklist to be complied with at all times . Discharging opeartions checklists to be complies with . Hourly pumproom rounds to be taken . LSA / FFA / SOPEP equipments to be kept ready at all times . Compare CCR guages with manual ullages of cargo tanks . Steel tapes to be used for comparison.</p> <p>BALLAST : USE 1 WBP when required and adhere to sequence mentioned above. Monitor stresses & stability of the vessel at all times</p>
4	<p>CARGO : Vessel to continue Discharging at maximum Discharging rate as above mentioned sequence plan. Hourly comparison of ship shore figures to be carried out. Hydraulic pump level to be monitored. Shipshore safety checklist to be complied with at all times . Loading opeartions checklists to be complies with . Hourly pumproom rounds to be taken . LSA / FFA / SOPEP equipments to be kept ready at all times .</p> <p>BALLAST : USE 1 WBP when required and adhere to sequence mentioned above. Monitor stresses & stability of the vessel at all times</p>

Cargo plan to be prepared prior every Load / Discharge operation and forwarded to Operations / QHSE for review. To be forwarded as hard copy on board in CCR 2.0 folder



CCR. 2.0 - LOADING & DISCHARGING PLAN

Date : 10/08/2018
 Page : 9 of 10
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Stage No: Hours:	Instructions To Be Followed
Critical Stages of Operation / Precautions against static generation / Line clearing	
Stage no 1	Ensure lineup before starting discharging.. During ullaging/ gauging equipment to earthed before using. All deck hands to use gas meters at all times.
Stage no 5	After completion of discharging before disconnecting manifolds blow air to ensure no cargo splash takes place.crew members carrying out operation to wear special suits and face shields for safety.
Notice of Rate Change / Venting Requirements	
Stage No 5	Vessel to maintain watch on agreed VHF communication channel at all times . Vessel needs 5 minutes notice to reduce rate. Inform duty engineer and ETO before any changes to COP rpm are made.
	Vessel will use Mastriser as means of maintaining Positive pressure inside inside tanks . Ensure mastriser to be kept open at all times.
Emergency Stop Procedures / Emergency spill Procedures & Spill containment	
Vessel has Emergency stops located at PORT manifold, STBD manifold, Pumproom entrance, Pumproom Bottom, CCR. If any leakage is observed COP to be tripped from any of above location , Manifold v/v to be closed and Drop V/v to be opened to depressurize the line in order to minimize the spill quantity.	
Alarm to be raised immediately in any spill and SOPEP equipments deployed for spill containment. Scuppers to be plugged during entire operation . Vessel to keep ready air driven wilden pumps with discharge going to SLOPS .Dump v/v to be used if required with permission of chief officer. DPA to be notified if required.	
Hazards of Cargoes / Special precautions required	
Bitumen is a high temperature cargo . Precautions to be taken while ullaging or checking temperature of COT, Proper PPE to be worn . Temperature resistant suit to be worn, Visor to be used during ullaging. While Disconnecting the manifolds Air to blown in the line and de pressurized to avoid any splash. Proper high temperature suits / Visors to be worn by all persons involved in manifold disconnection. Air inlets when not being used should be plugged to avoid any accidental release during operation.	
Pumproom blower to be kept running at all times during operation. Hourly pumproom rounds to be carried out. Defeciency of oxygen can be encountered in pumproom due to high temperature inside. Gas monitores to be always carried for pumproom entry. Rescue equipments to be kept in state of full readiness at all times.	

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UKC limitations / Bunkering / Others

NA

Pre-loading / Pre- discharging plan understood and reviewed by all Deck Officers

Cargo Watch-keeping Schedule: -

	Officer On Watch	Deck Watch
0000-0600 / 1200- 1800	2nd officer	
0600-1200 / 1800 - 2400	3rd officer	

Prepared by Chief Officer:

Reviewed by Deck Officer's:

Approved by Master:

2nd Officer

3rd Officer

:

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